

END BONNETS FOR SHELL AND TUBE DX EVAPORATOR

ABSTRACT OF THE DISCLOSURE

The end bonnets for a dry expansion heat exchanger of the shell and tube type having a plurality of bundles of tubes. A pair of end bonnets on opposite ends of the shell. Vertical flat impingement plates between the horizontal baffle ribs within the bonnets subdivide the bonnets into sub-chambers corresponding to the tube count in respective tube bundles. The cross-sectional areas of successive bundles of tubes increase to allow for expansion of the coolant as it flows through the heat exchanger and absorbs heat from the fluid to be cooled. The vertical plates in the end bonnets define restricted flow areas for the coolant which increases in flow area corresponding to the respective tube bundles.